

**Amendments to the Specification:**

Page 1, below the title and above "Technical Field", please insert the following new paragraph:

--This application is the United States national phase application of International Application PCT/JP2004/018858 filed December 10, 2004.--

Please replace the last paragraph on page 16 which continues to the top of page 17 with the following amended paragraph:

In Equation (1.6),  $\sigma_{req}$  is a stress of a point corresponding to  $\epsilon_{req}$  on the stress-strain curve. The right side of Equation (1.6) includes  $\sigma_{req}$  serving as a dependent variable of  $\epsilon_{req}$ . Therefore, when the right side is arranged as a function of the values that are temporally set and the required value, and the dependent variable  $\sigma_{req}$  and a tangent modulus  $[[E_{req}]]$   $E_{treq}$  serving as a required value are disposed in the left side; Equation (1.7), which is shown in (6), is obtained.

Please replace the last full paragraph on page 22 with the following amended paragraph:

The tangent modulus  $E_{Tcr}$  and the secant modulus  $[[E_{cr}]]$   $E_{scr}$  at the buckling point (point C) are represented by the following equations.

Please replace the last line on page 25 which continues to the first paragraph on page 26 with the following amended paragraph:

The stress-strain relationship is a monotonically increasing function. For local buckling in a plastic region considered in this specification, the relationship of stress between two points in the numerator of the right side of the equation above is represented as the following Equation ~~(4.94)~~ (4.9).

Please replace the first full paragraph on page 39 with the following amended paragraph:

Substituting  $\epsilon_{req}$ : 0.010,  $[[.015]]$   $\epsilon_2$ : 0.015 (an auxiliary point 2 is set at 1.5% by adding 0.5% to the required critical buckling strain of 1.0%),  $t$ : 12.2 mm, and  $D$ : 610.0 mm into the ~~left~~ right side of the above-described equation yields the following: